COLORADO
Division of Reclamation, Mining and Safety
Department of Natural Resources

MINERALS PROGRAM INSPECTION REPORT
PHONE: (303) 866-3567

The Division of Reclamation, Mining and Safety has conducted an inspection of the mining operation noted below. This report documents observations concerning compliance with the terms of the permit and applicable rules and regulations of the Mined Land Reclamation Board.

MINE NAME: Siloam Mine	**MINE/PROSPECTING ID#:** M-1977-326	**MINERAL:** Clay (general) and ag	**COUNTY:** Pueblo
INSPECTION TYPE: Monitoring	**WEATHER:** Clear	**INSP. DATE:** December 5, 2024	**INSP. TIME:** 12:45
OPERATOR: General Shale Brick, Inc.	**OPERATOR REPRESENTATIVE:** Mr. Jason McGraw	**TYPE OF OPERATION:** 110c - Construction Limited Impact	
REASON FOR INSPECTION: Normal I&E Program	**BOND CALCULATION TYPE:** Complete Bond	**BOND AMOUNT:** $28,000.00	
DATE OF COMPLAINT: NA	**POST INSP. CONTACTS:** None	**JOINT INSP. AGENCY:** None	
INSPECTOR(S): Jocelyn Carter Ursula Armstrong	**INSPECTOR'S SIGNATURE:**	**SIGNATURE DATE:** January 6, 2025	

GENERAL INSPECTION TOPICS

This list identifies the environmental and permit parameters inspected and gives a categorical evaluation of each. No problems or possible violations were noted during the inspection. The mine operation was found to be in full compliance with Mineral Rules and Regulations of the Colorado Mined Land Reclamation Board for the Extraction of Construction Materials and/or for Hard Rock, Metal and Designated Mining Operations. Any person engaged in any mining operation shall notify the office of any failure or imminent failure, as soon as reasonably practicable after such person has knowledge of such condition or of any impoundment, embankment, or slope that poses a reasonable potential for danger to any persons or property or to the environment; or any environmental protection facility designed to contain or control chemicals or waste which are acid or toxic-forming, as identified in the permit.

(AR) RECORDS---------- Y	(FN) FINANCIAL WARRANTY-------- Y	(RD) ROADS---------- Y
(HB) HYDROLOGIC BALANCE---------- Y	(BG) BACKFILL & GRADING---------- N	(EX) EXPLOSIVES--------- Y
(PW) PROCESSING WASTE/TAILING---- N	(SF) PROCESSING FACILITIES------- NA	(TS) TOPSOIL---------- N
(MP) GENL MINE PLAN COMPLIANCE- N	(FW) FISH & WILDLIFE---------- N	(RV) REVEGETATION---- N
(SM) SIGNS AND MARKERS---------- Y	(SP) STORM WATER MGT PLAN---- NA	(RS) RECL PLAN/COMP-- N
(ES) OVERBURDEN/DEV. WASTE--------- N	(SC) EROSION/SEDIMENTATION--- N	(ST) STIPULATIONS------- NA
(AT) ACID OR TOXIC MATERIALS------- NA	(OD) OFF-SITE DAMAGE----------N	

Y = Inspected / N = Not inspected / NA = Not applicable to this operation / PB = Problem cited / PV = Possible violation cited

OBSERVATIONS

The inspection of the Siloam Mine, Permit No. M-1977-326, was conducted by Jocelyn Carter and Ursula Armstrong on behalf of the Division or Reclamation, Mining, and Safety (Division/DRMS). Siloam Mine is operated by General Shale Brick, Inc. and Jason McGraw was present for the inspection. The inspection took place during the afternoon and the weather was clear with cool temperatures and some snow on the ground.

Siloam Mine is 110c permit that extracts clay for manufacturing bricks and the post mine land use is rangeland. The site is located about 8.5 miles southeast of Wetmore in Pueblo County. To access the site from the intersection of Colorado 67 (CO-67) and Colorada 96 (CO-96) in Wetmore, travel east on CO-96 for 6.8 miles, turn south on Siloam Rd and continue on Siloam Rd for 8 miles, the entrance to the site is on the east side of the road. Siloam Mine is non-contiguous permit consisting of three parcels: an eastern parcel and a north and southwestern portion. Much of the permitted area is located in the eastern parcel. located within the permit boundary of the Bedrock Mine, Permit No. M-1997-086, and immediately east of Pinion Mine, permit No. M-1997-094, both operated by Siloam Stone, Inc. The two operators have a working relationship.

The target layer for the Siloam Mine is a gray clay layer situated below approximately ~16 feet of sandstone layers. Siloam Stone, Inc. removes the sandstone layers as part of their mining process, exposing a capstone sandstone layer just above the gray clay. The capstone layer is kept as overburden material to be used for reclamation by General Shale Brick, Inc. The clay is removed and stockpiled.

Mining activities were not taking place during the time of the inspection. There is a stockpile clay material located around the northwest parcel. According to Mr. McGraw, approximately 700 tons of the material has been removed annually. Once the stockpile has been exhausted, clay material will be extracted from the current highwall located on the east parcel. The highwall was measured using satellite imagery, the current length is about 530 feet, and the average depth is 12.5 feet. According to the last inspection by DRMS, performed in July of 2020, the stockpile had enough material to last for years. According to historic and current imagery, the stockpile has been reduced to half of its size in October 2024 from its size in September of 2020.

The financial warranty held by the Division for this permit is $28,000. Using information for the inspection and satellite imagery, the reclamation cost estimate was recalculated as part of this inspection. The financial warranty is no longer adequate to cover reclamation costs, according to the Division's calculation, the reclamation costs for this site based on the current disturbances is $37, 969.

A copy of the Division's reclamation cost estimate calculations is attached to this report. Photos taken during the inspection are also included in this report. Questions regarding this inspection report can be directed to me, Jocelyn Carter, at Jocelyn.carter@state.co.us or (720) 666-1065.

Records

There are no open violations or enforcement issues with this permit. The annual map, report, and fees were submitted on October 30, 2024. The last inspection of the site occurred on July 14, 2020, by Patrick Lennberg.

Hydrological Balance

During the July 14, 2020, inspection, an area was noted where it had potential to hold water for an extended period of time. It was recommended that the Operator fill in the area to prevent any disruption to the hydrologic balance. The area has been filled in and did not appear to be disrupting the hydrologic balance.

Signs and Markers

There is a sign at the entrance of the mine site that meets the requirements of Rule 3.1.12(1), see Photo #1.

Financial Warranty

The Davison has re-calculated the reclamation cost estimate for the disturbances observed on site. The current bond held for the permit by the Division is $28,000 which is $9,969 short of the estimated cost of $37,969. The Division will issue a Surety Increase to the Operator.

Roads

Roads on the permit site are stable and in good condition.

Explosives

The permit does have a blasting plan in place, approved through technical revision TR-1 in February of 1999. Mr. McGraw stated that the last time explosives were used at the site had been years but was unable to say for sure when.

Topsoil

The topsoil stockpile for the site is not kept within the permit boundary for Siloam M-1977-326. The topsoil stockpile is located on the Bedrock Mine #1 M-1997-086 permit site and appears to be adequate in volume, stable, and well vegetated.

PHOTOGRAPHS

Photo #1: Mine sign in accordance with Rule 3.1.12(1).

Photo #2: Product stockpile, the grey clay, viewed from the west looking east.

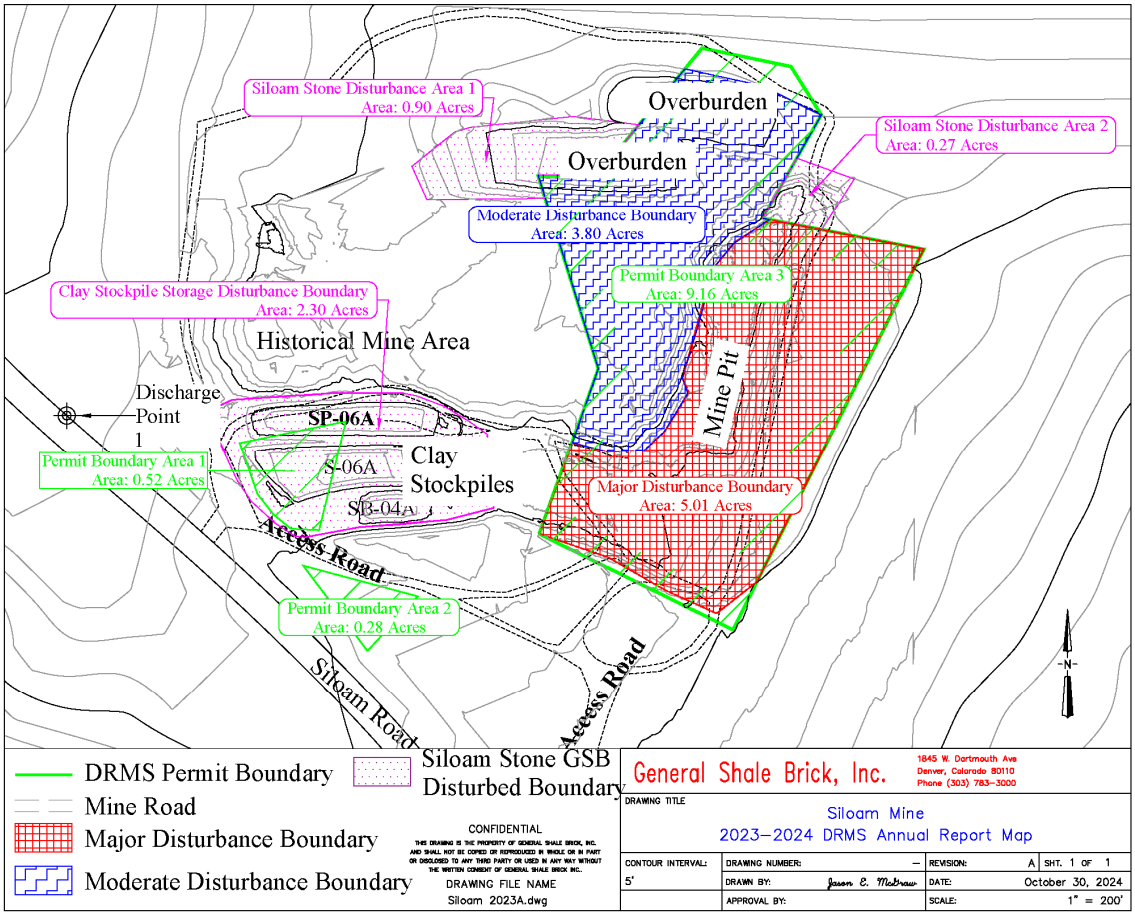
Photo #3: Highwall seen on the left side of the photo, photo taken from the pit floor looking southwest.

Photo #4: Highwall seen on the right side of the photo, photo taken from the pit floor looking northeast.

Photo #5: View above the working highwall for this permit, standing on the capstone layer. Looking to the southwest, the highwall seen in this photo is attributed to disturbance from the Bedrock Mine #1 operation.

Photo #6: Equipment located on the northeast section of the permitted area; looking to the southeast.

Photo #7: From the northern section of the permit area looking to the south-southwest. The bedrock Mine #1 highwall, the capstone layer above the gray clay, the Siloam Mine highwall, and the pit floor can be seen on the left side of the photo. On the right side of the photo, the area above the pit floor is used for storage of product material for the other two mines operated by Siloam Stone, Inc.



2024 annual map submitted for the Siloam Mine permit.

Inspection Contact Address
Mr. Jason McGraw
General Shale Brick, Inc.
1845 W. Dartmouth Ave.
Denver, CO 80110

Enclosure: Division Reclamation Cost Estimate 2024

CC: Amy Eschberger, DRMS

COST SUMMARY WORK

Task description: **Cost Summary**

Site: **Siloam Mine** Permit Action: 2024 Inspection Permit/Job#: M1977326

PROJECT IDENTIFICATION

Task #: 000 State: Colorado Abbreviation: None
Date: 12/19/2024 County: Pueblo Filename: M326-000
User: JLC

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Grade Highwall to 3H:1V	DOZER	1	1.24	$273
002	Spread 6 inches of topsoil over 9.9 acres	DOZER	1	35.49	$7,782
003	Revegetation	REVEGE	1	20.00	$17,800
004	Mobilization/demobilization	MOBILIZE	1	3.54	$2,769
	SUBTOTALS:			**60.27**	**$28,624**

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance:	2.02	Total =	$578
Performance bond:	1.05	Total =	$301
Job superintendent:	30.14	Total =	$2,389
Profit:	10.00	Total =	$2,862
		TOTAL O & P =	$6,130
		CONTRACT AMOUNT (direct + O & P) =	$34,754

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs):	$0	Total =	$0
Engineering work and/or contract/bid preparation:	4.25	Total =	$1,477
Reclamation management and/or administration:	5.00		$1,738
CONTINGENCY:	0.00	Total =	$0
		TOTAL INDIRECT COST =	$9,345
		TOTAL BOND AMOUNT (direct + indirect) =	**$37,969**

BULLDOZER WORK

Task description: **Grade Highwall to 3H:1V**

Site: **Siloam Mine** Permit Action: 2024 Inspection Permit/Job#: M1977326

PROJECT IDENTIFICATION

Task #: 001 State: Colorado Abbreviation: None
Date: 12/19/2024 County: Pueblo Filename: 001
User: JLC

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D7R DS XR Series II
Horsepower: 240
Blade Type: Semi-Universal
Attachment: 3-shank ripper
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$90.24	NA
Operating Cost/Hour:	$78.95	100
Ripper own. Cost/Hour:	$9.25	NA
Ripper op. Cost/Hour:	$1.56	30
Operator Cost/Hour:	$40.04	NA

Total unit Cost/Hour: $220.04
Total Fleet Cost/Hour: **$220.04**

MATERIAL QUANTITIES

Initial Volume: 930
Swell factor: 1.220
Loose volume: **1,135** LCY

Source of estimated volume: Length 530 ft height 13 ft
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 50 feet
Unadjusted hourly production: 1,022.9 LCY/hr

Materials consistency description: Partly consolidated stockpile 1.1

Average push gradient: -10 %
Average site altitude: 5,850 feet

Material weight: 2,800 lbs/LCY

Weight description: Clay - Natural bed

Job Condition Correction Factor Source

Operator Skill:	0.900	(AB.AVG.)
Material consistency:	1.100	(CAT HB)
Dozing method:	1.200	(SLOT)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.900	(SSD-FC)
Push gradient:	1.225	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.821	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.8925

Adjusted unit production: 912.94 LCY/hr

Adjusted fleet production: **912.94** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $0.241/LCY

Total job time: **1.24** Hours
Total job cost: **$273**

BULLDOZER WORK

Task description: **Spread 6 inches of topsoil over 9.9 acres**

Site: **Siloam Mine** Permit Action: 2024 Inspection Permit/Job#: M1977326

PROJECT IDENTIFICATION

Task #: 002 State: Colorado Abbreviation: None
Date: 12/19/2024 County: Pueblo Filename: 002
User: JLC

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D7R DS XR Series II
Horsepower: 240
Blade Type: Semi-Universal
Attachment: 3-shank ripper
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$90.24	NA
Operating Cost/Hour:	$78.95	100
Ripper own. Cost/Hour:	$9.25	NA
Ripper op. Cost/Hour:	$0.78	15
Operator Cost/Hour:	$40.04	NA

Total unit Cost/Hour: $219.26
Total Fleet Cost/Hour: **$219.26**

MATERIAL QUANTITIES

Initial Volume: 8,000
Swell factor: 1.230
Loose volume: **9,840** LCY

Source of estimated volume: Division of Reclamation, Mining & Safety
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 295 feet
Unadjusted hourly production: 314.4 LCY/hr

Materials consistency description: Consolidated stockpile 1.0

Average push gradient: -10 %
Average site altitude: 5,850 feet

Material weight: 2,100 lbs/LCY

Weight description: Earth - Loam

Job Condition Correction Factor Source

Operator Skill:	0.900	(AB.AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.100	(50% SL)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.225	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.095	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.8818

Adjusted unit production: 277.24 LCY/hr

Adjusted fleet production: **277.24** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $0.791/LCY

Total job time: **35.49** Hours
Total job cost: **$7,782**

REVEGETATION WORK

Task description: **Revegetation**

Site: **Siloam Mine** Permit Action: 2024 Inspection Permit/Job#: M1977326

PROJECT IDENTIFICATION

Task #: 003 State: Colorado Abbreviation: None
Date: 12/19/2024 County: Pueblo Filename: 003
User: JLC

Agency or organization name: DRMS

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Blue Grama - Hachita	1.50	24.48	$42.97
Indian Ricegrass - Native	1.00	3.24	$17.29
Sideoats Grama - Vaughn	2.00	6.57	$49.18
Sheep Fescue - Bighorn	0.50	7.81	$2.48
Thickspike Wheatgrass - Critana	2.00	7.07	$16.30
Western Wheatgrass - Barton	4.00	10.10	$37.58
Needlegrass, Green - Lodorm	1.00	4.16	$8.65
Totals Seed Mix	12.00	63.42	**$174.45**

Application

Description	Cost /Acre
Drill Seeding (DRMS Survey Cost)	$236.64
Total Seed Application Cost/Acre	**$236.64**

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Hay, delivered {MEANS 31 25 14.16 1200}	2.00	TON	$492.78	$985.56
Total Mulch Materials Cost/Acre				**$985.56**

Application

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	$85.37
Power mulcher (MEANS 32 91 13.16 0350)	$157.25
Total Mulch Application Cost/Acre	**$242.63**

JOB TIME AND COST

No. of Acres:	9.9	Cost /Acre:	$1,756.89
Estimated Failure Rate:	10%	Cost /Acre*:	$411.09
*Selected Replanting Work Items:	SEEDING		

Initial Job Cost:	**$17,393.21**
Reseeding Job Cost:	**$406.98**
Total Job Cost:	**$17,800**
Job Hours:	**20.00**

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Task description: **Mobilization/demobilization**

Site: **Siloam Mine** Permit Action: 2024 Inspection Permit/Job#: M1977326

PROJECT IDENTIFICATION

Task #: 004 State: Colorado Abbreviation: None
Date: 12/19/2024 County: Pueblo Filename: 004
User: JLC

Agency or organization name: DRMS

EQUIPMENT TRANSPORT RIG COST

Shift basis: 1 per day
Cost Data Source: CRG Data

Truck Tractor Description: GENERIC ON-HIGHWAY TRUCK TRACTOR, 6X4, DIESEL POWERED, 400 HP (2ND HALF, 2006)

Truck Trailer Description: GENERIC FOLDING GOOSENECK, DROP DECK EQUIPMENT TRAILER (25T, 50T, AND 100T)

Cost Breakdown:

Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons
Ownership Cost/Hour:	$10.44	$22.18	$23.94
Operating Cost/Hour:	$26.48	$54.55	$55.65
Operator Cost/Hour:	$22.52	$22.52	$22.52
Helper Cost/Hour:	$0.00	$23.53	$23.53
Total Unit Cost/Hour:	$59.44	$122.78	$125.64

NON ROADABLE EQUIPMENT:

Machine Description	Weight/ Unit (TONS)	Owner ship Cost/hr/ unit	Haul Rig Cost/hr/unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet	DOT Permit Cost/ fleet
Cat D7R DS XR Series II	35.93	$99.49	$122.78	1	$222.27	$122.78	$250.00
Power Mulcher (Bowie LD-90)	6.00	$27.21	$59.44	1	$86.65	$59.44	$250.00
Drill/Broadcast Seeder with Tractor	25.00	$41.02	$59.44	1	$100.46	$59.44	$250.00
Subtotals:					**$409.38**	**$241.66**	**$750.00**

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Light Duty Pickup, 4x4, 1 T. Crew	$24.60	1	$24.60	$24.60
Subtotals:			**$24.60**	**$24.60**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	PUEBLO	
Total one-way travel distance:	35.00	miles
Average Travel Speed:	55.00	mph
Total Non-Roadable Mob/Demob Cost * '* two round trips with haul rig:	$2,737.98	
Total Roadable Mob/Demob Cost ** ** one round trip, no haul rig:	$31.31	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.64	0.64
Return Time (Hours):	0.64	0.64
Loading Time (Hours):	0.25	NA
Unloading Time (Hours):	0.25	NA
Subtotals:	1.77	1.27

JOB TIME AND COST

Total job time:	**3.55**	Hours
Total job cost:	**$2,769**	